

**LISTING OF CLAIMS**

1-10. (Canceled)

11. (Currently Amended) A method for the enzymatic production of terminally or subterminally hydroxylated fatty acids, which comprises

- a) converting a fatty acid selected from terminally saturated, branched or unbranched fatty acids with 8 to 30 carbon atoms or fatty acid derivative thereof, selected from C<sub>1</sub>-C<sub>4</sub> alkyl esters, amides and anhydrides, in the presence of an electron donor system, ~~using~~ a cytochrome P450 monooxygenase and oxygen wherein said electron donor system comprises an inorganic, non-electrode bound source of electrons and a mediator which is able to transfer electrons from the source of electrons to the enzyme, wherein said enzyme ~~is~~ is a cytochrome P450-containing monooxygenase (E.C. 1.14) ~~of the families CYP4, CYP52, CYP102, and~~ wherein the source of electrons is a metal in powder form with a lower standard normal potential than the mediator; and
- b) isolating the hydroxylated product(s).

12. (Currently Amended) A method as claimed in claim 11, wherein the  $\omega$ -hydroxylatable fatty acid derivative is selected from terminally saturated, branched or unbranched ~~C<sub>12</sub>-C<sub>20</sub>~~ C<sub>10</sub>-C<sub>30</sub> fatty acids.

13. (Canceled)

14. (Currently Amended) A method as claimed in claim 11 ~~43~~, wherein the cytochrome P450 mono oxygenase is a single mutant selected from the group consisting of F87A, F87V, L188K, V26T, R47F and V26T.

15. (Currently Amended) A method as claimed in claim 11 ~~43~~, wherein the cytochrome P450 mono oxygenase is a mutant having ~~has~~ in position 87 the

mutation F87A or F87V and at least one other of the following mutations: L188K, A74G, R47F and V26T.

16. (Currently Amended) A method as claimed in claim 26 ~~44~~, wherein the electron donor system is zinc/Co(III) sepulchrate.
17. (Previously Presented) A method as claimed in claim 11, wherein at least stage a) is carried out in the presence of chloride ions.
18. (Previously Presented) A method as claimed in claim 11, wherein at least stage a) is carried out in the presence of a hydrogen peroxide-cleaving enzyme.
- 19-22. (Canceled)
23. (New) A method as claimed in claim 11, wherein the mediator has a standard normal potential in the region of less than about -0.4 V.
24. (New) A method as claimed in claim 11, wherein the mediator is selected from cobalt(III) sepulchrate, methylviologen, neutral red, riboflavin, ruthenium triacetate, FMN and FAD.
25. (New) A method as claimed in claim 11, wherein the source of electrons is metallic zinc.
26. (New) A method as claimed in claim 11, selected from the systems:
  - Zn/cobalt(III) sepulchrate and
  - Zn/neutral red.
27. (New) A method as claimed in claim 12, wherein the  $\omega$ -hydroxylatable fatty acid derivative is selected from terminally saturated, branched or unbranched C<sub>12</sub>-C<sub>30</sub> fatty acid.

28. (New) A method as claimed in claim 12, wherein the  $\omega$ -hydroxylatable fatty acid derivative is selected from terminally saturated, branched or unbranched C<sub>12</sub>-C<sub>25</sub> fatty acid.
29. (New) A method as claimed in claim 12, wherein the  $\omega$ -hydroxylatable fatty acid derivative is selected from terminally saturated, branched or unbranched C<sub>12</sub>-C<sub>20</sub> fatty acid.
30. (New) A method as claimed in claim 11, wherein the cytochrome P450 mono oxygenase is a mutant, which is obtained by amino acid substitution in at least one of positions 26, 47, 72, 74, 87, 188 and 354, of the wild-type enzyme (SEQ ID NO: 35).